#10

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/060,795B

DATE: 11/05/2002 P.6
TIME: 12:39:12

Input Set : N:\Crf4\10302002\J060795B.raw
Output Set: N:\CRF4\11052002\J060795B.raw

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      1 <110> APPLICANT: Civelli Olivier
      2       Bunzow, James R.
      3       Grandy, David K.
      4       Machida, Curtis A.
      5 <120> TITLE OF INVENTION: Dopamine Receptors and Genes
      6 <130> FILE REFERENCE: 90-1092-CCC
C-->  7 <140> CURRENT APPLICATION NUMBER: US/10/060,795B
      8 <141> CURRENT FILING DATE: 2002-01-29
      9 <150> PRIOR APPLICATION NUMBER: 09/238977
     10 <151> PRIOR FILING DATE: 1999-01-27
     11 <150> PRIOR APPLICATION NUMBER: 08/474892
     12 <151> PRIOR FILING DATE: 1995-06-07
     13 <150> PRIOR APPLICATION NUMBER: 07/973588
     14 <151> PRIOR FILING DATE: 1992-11-09
     15 <150> PRIOR APPLICATION NUMBER: 07/438544
     16 <151> PRIOR FILING DATE: 1989-11-20
     17 <150> PRIOR APPLICATION NUMBER: 07/273373
     18 <151> PRIOR FILING DATE: 1988-11-18
     19 <160> NUMBER OF SEQ ID NOS: 25
     20 <170> SOFTWARE: PatentIn Ver. 2.0
     22 <210> SEQ ID NO: 1
     23 <211> LENGTH: 2455
     24 <212> TYPE: DNA
     25 <213> ORGANISM: Rattus norvegicus
     26 <220> FEATURE:
     27 <221> NAME/KEY: CDS
     28 <222> LOCATION: (128)..(1372)
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     31       cgccttctct ggccccgggc gccatatggc ttgaagagcc gtgccaccca gtggccccac 120
     32       tgcccca atg gat cca ctg aac ctg tcc tgg tac gat gac gat ctg gag   169
     33               Met Asp Pro Leu Asn Leu Ser Trp Tyr Asp Asp Asp Leu Glu
     34                 1               5                  10
     35       agg cag aac tgg agc cgg ccc ttc aat ggg tca gaa ggg aag gca gac   217
     36       Arg Gln Asn Trp Ser Arg Pro Phe Asn Gly Ser Glu Gly Lys Ala Asp
     37        15                  20                  25                  30
     38       agg ccc cac tac aac tac tat gcc atg ctg ctc acc ctc ctc atc ttt   265
     39       Arg Pro His Tyr Asn Tyr Tyr Ala Met Leu Leu Thr Leu Leu Ile Phe
     40                       35                  40                  45
     41       atc atc gtc ttt ggc aat gtg ctg gtg tgc atg gct gta tcc gca gag   313
     42       Ile Ile Val Phe Gly Asn Val Leu Val Cys Met Ala Val Ser Ala Glu
     43                     50                  55                  60
     44       aag gct ttg cag acc acc acc aac tac ttg ata gtc agc ctt gct gtg   361
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Lys Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val
          65                  70                  75
gct gat ctt ctg gtg gcc aca ctg gta atg ccg tgg gtt gtc tac ctg   409
Ala Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu
     80                  85                  90
gag gtg gtg ggt gag tgg aaa ttc agc agg att cac tgt gac atc ttt   457
Glu Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe
 95                 100                 105                 110
gtc act ctg gat gtc atg atg tgc aca gca agc atc ctg aac ctg tgt   505
Val Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys
                115                 120                 125
gcc atc agc att gac agg tac aca gct gtg gca atg ccc atg ctg tat   553
Ala Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr
            130                 135                 140
aac aca cgc tac agc tcc aag cgc cga gtt act gtc atg att gcc att   601
Asn Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile
        145                 150                 155
gtc tgg gtc ctg tcc ttc acc atc tcc tgc cca ctg ctc ttc gga ctc   649
Val Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Leu Leu Phe Gly Leu
    160                 165                 170
aac aat aca gac cag aat gag tgt atc att gcc aac cct gcc ttt gtg   697
Asn Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val
175                 180                 185                 190
gtc tac tcc tcc att gtc tca ttc tac gtg ccc ttc atc gtc act ctg   745
Val Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu
                195                 200                 205
ctg gtc tat atc aaa atc tac atc gtc ctc cgg aag cgc cgg aag cgg   793
Leu Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Lys Arg Arg Lys Arg
            210                 215                 220
gtc aac acc aag cgc agc agt cga gct ttc aga gcc aac ctg aag aca   841
Val Asn Thr Lys Arg Ser Ser Arg Ala Phe Arg Ala Asn Leu Lys Thr
        225                 230                 235
cca ctc aag gat gct gcc cgc cga gct cag gag ctg gaa atg gag atg   889
Pro Leu Lys Asp Ala Ala Arg Arg Ala Gln Glu Leu Glu Met Glu Met
    240                 245                 250
ctg tca agc acc agc ccc cca gag agg acc cgg tat agc ccc atc cct   937
Leu Ser Ser Thr Ser Pro Pro Glu Arg Thr Arg Tyr Ser Pro Ile Pro
255                 260                 265                 270
ccc agt cac cac cag ctc act ctc cct gat cca tcc cac cac ggc cta   985
Pro Ser His His Gln Leu Thr Leu Pro Asp Pro Ser His His Gly Leu
                275                 280                 285
cat agc aac cct gac agt cct gcc aaa cca gag aag aat ggg cac gcc   1033
His Ser Asn Pro Asp Ser Pro Ala Lys Pro Glu Lys Asn Gly His Ala
            290                 295                 300
aag att gtc aat ccc agg att gcc aag ttc ttt gag atc cag acc atg   1081
Lys Ile Val Asn Pro Arg Ile Ala Lys Phe Phe Glu Ile Gln Thr Met
        305                 310                 315
ccc aat ggc aaa acc cgg acc tcc ctt aag acg atg agc cgc aga aag   1129
Pro Asn Gly Lys Thr Arg Thr Ser Leu Lys Thr Met Ser Arg Arg Lys
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Input Set : N:\Crf4\10302002\J060795B.raw
Output Set: N:\CRF4\11052002\J060795B.raw

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95      ctc tcc cag cag aag gag aag aaa gcc act cag atg ctt gcc att gtt   1177
96      Leu Ser Gln Gln Lys Glu Lys Lys Ala Thr Gln Met Leu Ala Ile Val
97      335                 340                 345                 350
98      ctc ggt gtg ttc atc atc tgc tgg ctg ccc ttc ttc atc acg cac atc   1225
99      Leu Gly Val Phe Ile Ile Cys Trp Leu Pro Phe Phe Ile Thr His Ile
100                     355                 360                 365
101      ctg aat ata cac tgt gat tgc aac atc cca cca gtc ctc tac agc gcc   1273
102      Leu Asn Ile His Cys Asp Cys Asn Ile Pro Pro Val Leu Tyr Ser Ala
103                 370                 375                 380
104      ttc aca tgg ctg ggc tat gtc aac agt gcc gtc aac ccc atc atc tac   1321
105      Phe Thr Trp Leu Gly Tyr Val Asn Ser Ala Val Asn Pro Ile Ile Tyr
106             385                 390                 395
107      acc acc ttc aac atc gag ttc cgc aag gcc ttc atg aag atc ttg cac   1369
108      Thr Thr Phe Asn Ile Glu Phe Arg Lys Ala Phe Met Lys Ile Leu His
109          400                 405                 410
110      tgc tgagtctgcc ccttgcctgc acagcagctg cttcccacct ccctgcctat        1422
111      Cys
112      415
113      gcaggccaga cctcatccct gcaagctgtg ggcagaaagg cccagatgaa cttggccttc 1482
114      tctcgaccct gcaggccctg cagtgttagc ttggctcgat gcccctctct gcccacacac 1542
115      cctcatcctg ccagggtagg gccagggaga ctggtatctt accagctctg gggttggacc 1602
116      catggctcag ggcagctcac agagtgcccc tctcatatcc agaccctgtc tccttggcac 1662
117      caaagatgca gcggccttcc ttgaccttcc tcttgggcac agaaactagc tcagtggtcg 1722
118      agcacaccct gatcgctggc ttggcctggc ccttgcttgc ctgtgccgga tcaggtggtg 1782
119      ggagggagcg acacgttctt actttatagg aaccacatag gaaagcaggg aacacgccaa 1842
120      gtcctccagg cacatcagtg tcaggagaca cacataaaca ccaggtagct ccatggaccc 1902
121      cagagaaact gaggctgaaa aatctgtttt ccactccaac tctagtgtga gtccctactt 1962
122      ttcatagcca tgggtattac tatgtcctac cttgttatag tatcccatgg ggtttctgta 2022
123      ccatttgggg gaaaacaact ctaatcctca agggccccaa gagaatctgt aaggagaaaa 2082
124      ataggctgat ctccctctac tctccaatcc actccaccac ttcttgatat accttggatg 2142
125      tatccattcc tcacagcaaa tgctggccag tcaggccttg gaccagtgtt ggagttgaag 2202
126      ctggatgtgg taacttgggg ctctttgggg ctgggggggt tgttaacatc gtctctcttc 2262
127      catatctctt ccttcccagt gcctctgcct tagaagaggc tgtggatggg gtgctgggac 2322
128      tgctgatacc attgggcctg gccctgaatg aggaggggaa gctgcagttt ggagggttct 2382
129      gggatccaac tctgtaacat cactatacct gtaccaaaac taataaaacc ttgacaagag 2442
130      tcaaaaaaaa aaa                                                   2455
132 <210> SEQ ID NO: 2
133 <211> LENGTH: 415
134 <212> TYPE: PRT
135 <213> ORGANISM: Rattus norvegicus
136 <400> SEQUENCE: 2
137      Met Asp Pro Leu Asn Leu Ser Trp Tyr Asp Asp Asp Leu Glu Arg Gln
138        1               5                  10                  15
139      Asn Trp Ser Arg Pro Phe Asn Gly Ser Glu Gly Lys Ala Asp Arg Pro
140                    20                  25                  30
141      His Tyr Asn Tyr Tyr Ala Met Leu Leu Thr Leu Leu Ile Phe Ile Ile
142              35                  40                  45
143      Val Phe Gly Asn Val Leu Val Cys Met Ala Val Ser Ala Glu Lys Ala
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RAW SEQUENCE LISTING DATE: 11/05/2002
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Input Set : N:\Crf4\10302002\J060795B.raw
Output Set: N:\CRF4\11052002\J060795B.raw

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144            50                  55                  60
145       Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp
146        65                  70                  75                  80
147       Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val
148                        85                  90                  95
149       Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr
150                   100                 105                 110
151       Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile
152              115                 120                 125
153       Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr
154          130                 135                 140
155       Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp
156       145                 150                 155                 160
157       Val Leu Ser Phe Thr Ile Ser Cys Pro Leu Leu Phe Gly Leu Asn Asn
158                        165                 170                 175
159       Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr
160                   180                 185                 190
161       Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val
162              195                 200                 205
163       Tyr Ile Lys Ile Tyr Ile Val Leu Arg Lys Arg Arg Lys Arg Val Asn
164          210                 215                 220
165       Thr Lys Arg Ser Ser Arg Ala Phe Arg Ala Asn Leu Lys Thr Pro Leu
166       225                 230                 235                 240
167       Lys Asp Ala Ala Arg Arg Ala Gln Glu Leu Glu Met Glu Met Leu Ser
168                        245                 250                 255
169       Ser Thr Ser Pro Pro Glu Arg Thr Arg Tyr Ser Pro Ile Pro Pro Ser
170                   260                 265                 270
171       His His Gln Leu Thr Leu Pro Asp Pro Ser His His Gly Leu His Ser
172              275                 280                 285
173       Asn Pro Asp Ser Pro Ala Lys Pro Glu Lys Asn Gly His Ala Lys Ile
174          290                 295                 300
175       Val Asn Pro Arg Ile Ala Lys Phe Phe Glu Ile Gln Thr Met Pro Asn
176       305                 310                 315                 320
177       Gly Lys Thr Arg Thr Ser Leu Lys Thr Met Ser Arg Arg Lys Leu Ser
178                        325                 330                 335
179       Gln Gln Lys Glu Lys Lys Ala Thr Gln Met Leu Ala Ile Val Leu Gly
180                   340                 345                 350
181       Val Phe Ile Ile Cys Trp Leu Pro Phe Phe Ile Thr His Ile Leu Asn
182              355                 360                 365
183       Ile His Cys Asp Cys Asn Ile Pro Pro Val Leu Tyr Ser Ala Phe Thr
184          370                 375                 380
185       Trp Leu Gly Tyr Val Asn Ser Ala Val Asn Pro Ile Ile Tyr Thr Thr
186       385                 390                 395                 400
187       Phe Asn Ile Glu Phe Arg Lys Ala Phe Met Lys Ile Leu His Cys
188                        405                 410                 415
190 <210> SEQ ID NO: 3
191 <211> LENGTH: 309
192 <212> TYPE: PRT
193 <213> ORGANISM: Mesocricetus auratus
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RAW SEQUENCE LISTING DATE: 11/05/2002
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Input Set : N:\Crf4\10302002\J060795B.raw
Output Set: N:\CRF4\11052002\J060795B.raw

<400> SEQUENCE: 3

Met Gly Pro Pro Gly Asn Asp Ser Asp Phe Leu Leu Thr Thr Asn Gly
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Ser His Val Pro Asp His Asp Val Thr Glu Glu Arg Asp Glu Ala Trp
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Val Val Gly Met Ala Ile Leu Met Ser Val Ile Val Leu Ala Ile Val
35 40 45
Phe Gly Asn Val Leu Val Ile Thr Ala Ile Ala Lys Phe Glu Arg Leu
50 55 60
Gln Thr Val Thr Asn Tyr Phe Ile Asp Ser Leu Ala Cys Ala Asp Leu
65 70 75 80
Val Met Gly Ile Ala Val Val Pro Phe Gly Ala Ser His Ile Ile Met
85 90 95
Lys Met Trp Asn Phe Gly Asn Phe Trp Cys Glu Phe Trp Thr Ser Ile
100 105 110
Gln Val Leu Cys Val Thr Ala Ser Ile Glu Thr Leu Cys Val Ile Ala
115 120 125
Val Gln Arg Tyr Ile Ala Ile Thr Ser Pro Phe Lys Tyr Gln Ser Leu
130 135 140
Leu Thr Lys Asn Lys Ala Arg Met Val Ile Leu Met Val Trp Ile Val
145 150 155 160
Ser Gly Leu Thr Ser Phe Ile Pro Ile Gln Met His Trp Tyr Arg Ala
165 170 175
Thr His Gln Lys Ala Ile Asp Cys Tyr His Arg Glu Thr Cys Cys Asp
180 185 190
Phe Phe Tyr Asn Gln Ala Tyr Ala Ile Trp Ser Ser Ile Val Ser Phe
195 200 205
Tyr Val Pro Leu Val Val Met Val Phe Val Tyr Ser Arg Val Phe Gln
210 215 220
Val Ala Lys Arg Gln Leu Gln Lys Ile Lys Glu His Lys Ala Leu Lys
225 230 235 240
Thr Leu Gly Ile Ile Met Gly Ile Phe Thr Leu Cys Trp Leu Pro Phe
245 250 255
Phe Ile Val Asn Ile Val His Val Ile Gln Asp Asn Leu Ile Pro Lys
260 265 270
Glu Val Tyr Ile Leu Leu Met Trp Leu Gly Tyr Val Asn Ser Ala Pro
275 280 285
Asn Pro Ile Ile Tyr Cys Arg Ser Pro Asp Phe Arg Ile Ala Phe Gln
290 295 300
Glu Ile Leu Cys Leu
305

<210> SEQ ID NO: 4
<211> LENGTH: 307
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 4

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1 5 10 15
Glu Ala Pro Gly Gly Gly Ala Arg Ala Thr Pro Tyr Ser Leu Gln Val

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/05/2002
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Input Set : N:\Crf4\10302002\J060795B.raw
Output Set: N:\CRF4\11052002\J060795B.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:8; N Pos. 230,233,234,274
Seq#:8; Xaa Pos. 77,78,91
Seq#:9; Xaa Pos. 77,78,91

VERIFICATION SUMMARY DATE: 11/05/2002
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Input Set : N:\Crf4\10302002\J060795B.raw
Output Set: N:\CRF4\11052002\J060795B.raw

L:7 M:270 C: Current Application Number differs, Wrong Format
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:193
L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:241
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:241
L:460 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:289
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:64
L:502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:80